Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte HANS-FRIEDRICH HERRMANN,
BERND BACHMANN, BERNHARD HIERHOLZER
and WALTER SPALECK

_____

Appeal No. 1997-3234
Application 08/040,671

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ON BRIEF

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Before WINTERS, JOHN D. SMITH and OWENS, *Administrative Patent Judges.*

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 1, 3-5, 8, 13, 19, 21 and 22, and refusal to allow claims 14, 16-18, 20, 24-26 as amended after final rejection and claim 28 which was added after final rejection. These are all of the claims remaining in the application.

THE INVENTION

Appellants claim a supported polymeric catalyst made by a

recited process, and also claim the process. Claim 1 is illustrative and reads as follows:

1. A supported polymerization catalyst, which is prepared by reacting a reaction product formed from an aluminoxane and at least one metallocene with a microporous, polymeric support wherein the microporous, polymeric support has a pore volume of at least 50% by volume, based on the total volume of the support material.

THE REFERENCE

Kioka et al. (EP '312) 0 295 312 Dec. 21, 1988
(European patent application)

THE REJECTION

Claims 1, 3-5, 8, 13, 14, 16-22, 24-26 and 28 stand rejected under 35 U.S.C. § 103 as being unpatentable over EP '312.

OPINION

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with the examiner that the claimed invention would have been obvious to one of ordinary skill in the art at the time of appellants' invention over the applied prior art. Accordingly, we affirm the aforementioned rejection.

Appellants state (brief, page 4) that the claims stand or fall in three groups: 1) claims 1, 3-5, 8, 13, 14 and 16-22, 2) claims 24, 26 and 28, and 3) claim 25. We therefore limit our discussion to one claim in each group, i.e., claims 1, 25 and 28.

See In re Ochiai, 71 F.3d 1565, 1566 n.2, 37 USPQ2d 1127, 1129 n.2 (Fed. Cir. 1995); 37 CFR § 1.192(c)(7)(1995).

Regarding claim 1, EP '312 discloses a supported polymerization catalyst which is made by reacting an aluminoxane with a metallocene in the presence of a support which can be a polymeric support (page 5, lines 20-30; page 13, lines 1-8). The reference does not disclose the pore volume of the polymeric support. However, the teaching that a polymeric support is used would have led one of ordinary skill in the art to use a commercially available polymeric support such as those which appellants acknowledge were commercially available and contain about 75 vol% of cavities (specification, page 23, lines 24-30).[1] The examiner argues that one of ordinary skill in the art would have desired to use in the EP '312 catalyst a high-pore-volume polymeric support, such as that acknowledged by appellants, because of its high surface area which causes the catalyst activity to be high (answer, pages 4-5). Because this argument is reasonable and appellants have not challenged it, we accept it

[1] It is axiomatic that our consideration of the prior art must, of necessity, include consideration of the admitted prior art. *See In re Hedges*, 783 F.2d 1038, 1039-40, 228 USPQ 685, 686 (Fed. Cir. 1986); *In re Davis*, 305 F.2d 501, 503, 134 USPQ 256, 258 (CCPA 1962).

as being correct.

Appellants argue that because their polymeric support has a microporous structure, their catalyst can be used in a polymerization media wherein the aluminoxane is soluble, whereas the EP '312 catalyst is limited to use in polymerization media in which the aluminoxane is insoluble (brief, pages 5-6). This argument is not well taken because the polymerization solvents disclosed in EP '312 (page 24, lines 9-14) are essentially the same as those used by appellants (specification, page 26, line 31 - page 27, line 4). Appellants have not provided a comparison, which is commensurate in scope with the claims, between their claimed invention and the closest EP '312 catalysts, and explained why the results would have been unexpected by one of ordinary skill in the art. Appellants have merely provided attorney argument, and such argument cannot take the place of evidence. *See In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984); *In re Payne*, 606 F.2d 303, 315, 203 USPQ 245, 256 (CCPA 1979); *In re Greenfield*, 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978); *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

Regarding claims 25 and 28, appellants acknowledge, as discussed above, that polymeric supports having a pore volume of 75%, based upon the total volume of the support material, were known in the art. Also, the acknowledged prior art polymeric supports have pore diameters in the 0.5-5 µm range and are made of thermoplastic materials (specification, page 23, lines 28-30).

For the above reasons we conclude, based upon the preponderance of the evidence, that the inventions recited in appellants' claims 1, 25 and 28 would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103.

DECISION

The rejection of claims 1, 3-5, 8, 13, 14, 16-22, 24-26 and 28 under 35 U.S.C. § 103 over EP '312 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

SHERMAN D. WINTERS Administrative Patent Judge	)
JOHN D. SMITH Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
TERRY J. OWENS Administrative Patent Judge	)

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